U. S. Application No. 10/717,264
Attorney Docket No. 2002B171/2
Reply to Office Action of July 14, 2006
Amendment dated October 10, 2006

AMENDMENTS TO THE DETAILED DESCRIPTION

Please amend the specification as follows:

Please replace paragraph **[0064]** on page 13 of the application as filed with the following replacement paragraph:

[0064] In one or more of the processes described herein, the metallocene includes a dimethylanilinium tetrakis (perfluorophyl) boron activator. Alternatively, the supported metallocene can include a methylaluminoxane ~~methylaluminoxane~~ activator.

Please replace the first full paragraph beginning on page 18, line 1 of the application as filed with the following replacement paragraph:

R^5 and R^6 are identical or different, and are one of a hydrogen atom, a halogen atom, a C_1-C_{10} alkyl group, which may be halogenated, a C_6-C_{10} aryl group, which may be halogenated, a C_2-C_{10} alkenyl group, a C_7-C_{40} arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, a [[-NR_2^{15}]] -NR'_2, [[-SR^{15}]] -SR', [[-OR^{15}]] -OR', [[-$OSiR_3^{15}$]] -$OSiR'_3$ or [[-PR_2^{15}]] -PR'_2 radical, wherein: ~~R^{15}~~ R' is one of a halogen atom, a C_1-C_{10} alkyl group, or a C_6-C_{10} aryl group;

Please replace the second and third full paragraphs beginning on page 19, line 3 of the application as filed with the following replacement paragraphs:

R^{10}, R^{11}, R^{12} and R^{13} are identical or different and have the meanings stated for R^5 and R^6; wherein at least one of R^{13} and R^{10} are identical or different, and are one of a hydrogen atom, a halogen atom, a C_1-C_{10} alkyl group, which may be halogenated, a C_6-C_{10} aryl group, which may be halogenated, a C_2-C_{10} alkenyl group, a C_7-C_{40} arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, a [[-NR_2^{15}]] -NR''_2, [[-SR^{15}]] -SR'', [[-OR^{15}]] -OR'', [[-$OSiR_3^{15}$]] -$OSiR''_3$ or [[-PR_2^{15}]] -PR''_2 radical, wherein: [[R^{15}]] R'' is one of a halogen atom, a C_1-C_{10} alkyl group, or a C_6-C_{10} aryl group; and

m and n are identical or different and are zero[[,]] or 1 ~~or 2~~, m plus n is zero, 1 or 2.

Please replace paragraph **[0078]** on page 21 of the application as filed with the following replacement paragraph:

[0078] In one or more of the polymer compositions described herein, the first diene monomer is 2-methyl-1,5-hexadiene or an α, internal non-conjugated diene monomer selected from the group consisting of ~~2-methyl-1,5-hexadiene and~~ 7-methyl-1, 6-octadiene.

Please replace paragraph **[0084]** on page 22 of the application as filed with the following replacement paragraph:

[0084] The α, internal diene monomers may be linear, cyclic, and/or multicyclic, including fused and non-fused cyclic dienes. Preferably, the α, internal non-conjugated diene monomers are linear. Also, preferably, the α, internal non-conjugated diene monomers include α, internal non-conjugated dienes in which the internal double bond is a vinylidene group or a tri-substituted unsaturation site. Examples of preferred α, internal non-conjugated dienes include ~~2-methyl-1,5-hexadiene (which has a vinylidene group);~~ 7-methyl-1,6-octadiene (which has a tri-substituted unsaturation site); dicyclopentadiene; vinylnorbornene; ethylidiene norbornene; 4-vinylcyclohexene; and 4-vinyl cyclopentene. Also available as a diene monomer in the present invention is 2-methyl-1,5 hexadiene (which has a vinylidene group).